

ON LAKE MICHIGAN



Winter 1999

Mayor Scott King looks to future of Lake Michigan communities

On September 17 in Hammond, Mayor Scott King spoke to the Natural Resources Commission about the future of Gary and Indiana's other Lake Michigan communities. King said he grew up in Chicago, but the "lakefront here. . . is really incomparable." Aware that he risked sounding parochial, King said Lake Michigan is the "greatest natural resource among many. This shoreline is a fantastic and varietal resource."

King also spoke as Chairman of the Lake Michigan Marina Development Commission. He said the LMMDC, a state agency consisting of six Lake Michigan shoreline community mayors and a non-voting representative from the DNR and the Department of Commerce, is "an interesting body to be a part of." Marina development is a "catalyst in the whole shoreline development scheme," but King said the LMMDC was also looking "beyond the goal of building marinas" to the long-term goal of a "comprehensive regional and state shoreline management and development plan. Marinas are a springboard rather than a finish tape."

King reminded the NRC the city of Gary was built because of its resources. The placement of U.S. Steel was a "virtual coin toss between Waukegon and Gary." Gary was chosen because of access to transportation and water afforded by Lake Michigan, but also because of the rail and other transportation facilities landward along the south edge of the lake. Today, steel production from Gary and the surrounding communities is as substantial as ever, but the number of workers and the space required for equivalent production quantities are reduced. King said greater emphasis needs to be placed on the unparalleled recreational opportunities afforded by the Lake Michigan shoreline.

On Shore for this issue:

Better News for Yellow Perch	2
Clean Air Testing for Diesel Trucks	2-3
Ancient Shipwrecks Part III	3-4
NRC Tour of Northern Lake County	4
Round Goby Affecting Native Species ...	4-5
New Coastal Coordination Manager	5
New Biologist Appointed	5-6

King spoke briefly about Gary's own plans for a marina facility. He said the City of Gary is changing the previous Administration's focus on the City's west side and instead directing attention to the east side.

"What we do in Gary impacts other communities. We share a vision with the other lakefront mayors," King observed, "we must have a vehicle to work with the DNR that is empowered to help the local people to shape the future, and to find a way to work with agencies and the Legislature to continue to develop [the shoreline communities] to help the entire state."

Better News for Lake Michigan Yellow Perch

Department of Natural Resources biologists are optimistic about Lake Michigan yellow perch production after reviewing recent spawning survey results. Yellow perch numbers in the lake dropped severely in recent years. In 1996, the DNR Director adopted an emergency rule to halt their commercial harvest and to restrict sport harvest. (See, Spring 1997, *SHORELINES*) Similar restrictions have been carried forward to the present through regular rule adoption by the Natural Resources Commission.

Today there is better news for Lake Michigan perch populations. Biologists from Indiana DNR and Ball State University see hopeful signs in the increased numbers of juvenile perch found during surveys this summer. The number of collected juvenile perch was the third highest on record and much higher than any year since 1990.

According to John Kubisiak, DNR Lake Michigan fisheries biologist in Michigan City, "The number of perch produced in Indiana waters this past spring seem to be very good. Lakewide, results varied, but we found at least some perch reproduction around the entire lake. We won't know for a couple of years how much this gen-

eration of fish will contribute to the adult population, but this year's spawning success gives us a positive start."

Fisheries managers from Indiana, Michigan, Wisconsin, and Illinois are conducting joint research to determine the causes for declining perch population. Preliminary analysis suggests adult perch numbers were low due to high mortality in very early stages of life, possibly because of predation by alewives, an abundant Lake Michigan fish. Research shows alewife abundance dropped 47% from 1997 to 1998.

DNR Deputy Director, Lori Kaplan, reported briefly to the Natural Resources Commission on the status of Lake Michigan yellow perch during the October monthly meeting. She said 1998 has seen the strongest "young of the year" class since 1990, but these fish will not mature until 2002. Kaplan reflected two factors relative to yellow perch and alewife populations may have contributed to the good perch year. First, waters in southern Lake Michigan were unusually warm this spring, with the result that yellow perch spawning occurred after alewives had generally left spawning waters. Second, the overall population of alewives, thought to be a primary predator of perch eggs and larvae, is low.

Kubisiak cautioned, however, against becoming overly optimistic. "A severe winter could kill large numbers of juvenile perch. Female perch from this year class will not spawn for the first time until 2001, and at it will take more than one good year class to rebuild the perch fishery. It would be premature to declare a population recovery before we

see how well the 1998 year class survives and reproduces."

Indiana biologists and state fisheries researchers around Lake Michigan will continue to look for causes of the perch population decline and gather information on the dynamics of perch production and survival.

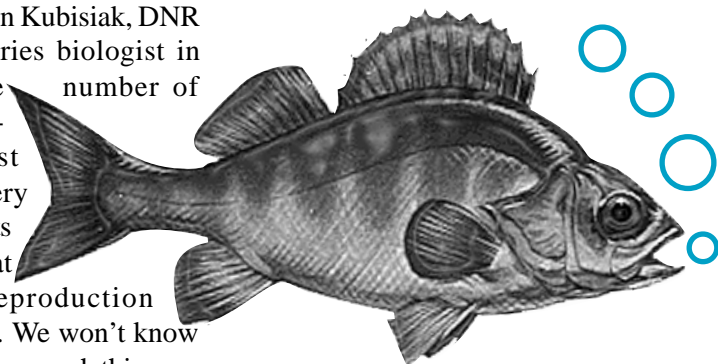


Clean Air Project Testing Diesel Trucks

The Indiana Department of Environmental Management and the Indiana State Police Motor Carrier Division are conducting a pilot project in Northwest Indiana to test emissions from diesel trucks. The project started in early October, with testing at the weigh station on southbound I-65 near Lowell, and will be completed by April 1, 1999.

"Northwest Indiana's heavy truck traffic is the source of unhealthy air pollution," said IDEM Assistant Commissioner for Air, Janet McCabe. "The region's quality of life will be improved with less truck pollution."

Michael Worrell, I/M Section Chief for IDEM's Air Programs Branch, said the agency needs to test another 200 vehicles to complete the pilot project. Testing thus far has not revealed a large number of violations among long-haul truckers, but Worrell said he hopes the pilot project will also include an adequate sampling from local truckers. To help assure a good sample, testing will be done at locations other than at the weigh station on I-65.



Worrell explained gasoline-powered internal combustion engines are believed the primary vehicular contributors to ozone problems in Northwest Indiana and elsewhere in the U.S. But there are increasing concerns, both by EPA and locally, that malfunctioning diesel engines contribute significantly to the discharge of particulates and toxic chemical pollutants. He added, "A sustained dark discharge of smoke from a diesel is an indication it's not operating right."

According to McCabe, "A truck emitting a lot of black smoke pollutes our air. It also means the truck's engine is not operating efficiently, costing the truck driver and owner more money in maintenance and fuel costs."

ANCIENT SHIPWRECKS Part III: The Future

Following is the final part of three-part SHORELINES series discussing shipwrecks in the Indiana waters of Lake Michigan. The summer issue reviewed recent legal developments, and the fall issue outlined efforts to locate and protect shipwrecks. This issue looks to what may become of this piece of Great Lakes Americana.

Shipwrecks in the Indiana waters of Lake Michigan face an uncertain future. A few modest steps have been taken for their preservation. With the assistance of the DNR's Division of Law Enforcement and sport divers, a preliminary inventory of known shipwrecks was prepared by the state archaeologist in 1989. The natural resources commission in 1991 adopted a very basic set of rules, since recodified at 312 IAC 6-3, designed to help protect shipwrecks from looting. Division 10 of the DNR's Division of Law Enforcement, stationed in Michigan City, tries to "keep an eye out" for suspicious activities near known shipwreck sites.

But Timothy Early, director of the Aquatic Research Institute in East Chicago, voices his concerns. "Indiana's shipwrecks are rare and unique. Unfortunately, sunken ships do not enjoy the popular attention of historic land sites. They are inaccessible, an out-of-mind resource. Until that perception can be altered, they will remain a relegate resource."

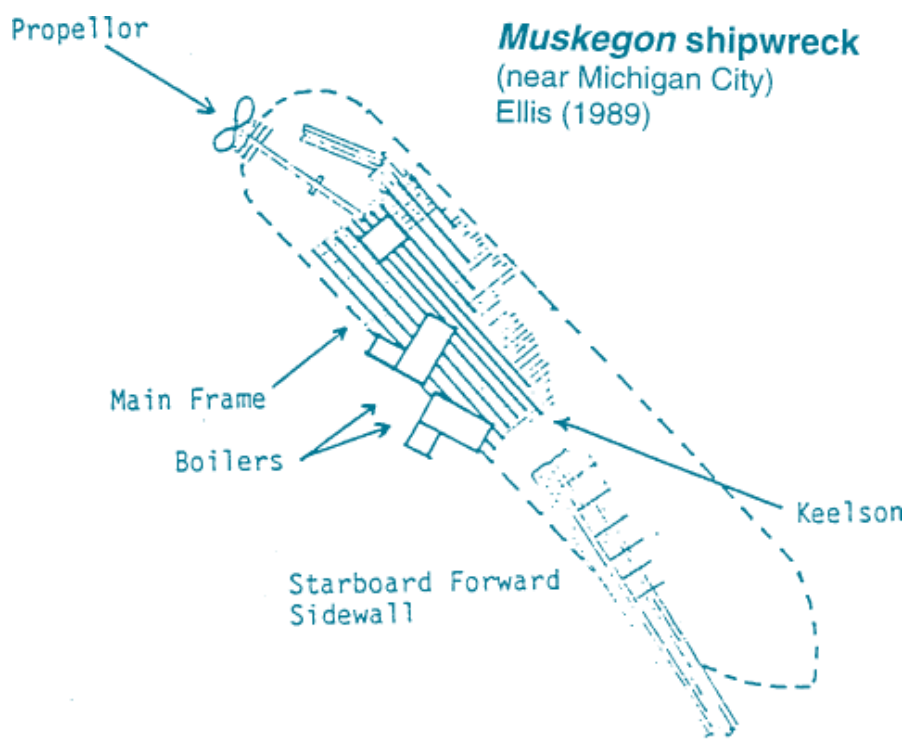
Indiana is not entirely unique. The status of shipwreck preservation efforts throughout the Great Lakes is a matter of growing concern. Ken Vrana, director of the Center for Maritime and Un-

derwater Resource Management at Michigan State University, describes the challenges in a recent issue of Coastal Services magazine. He outlines competing interests. The need for site preservation must be balanced against the need for public access. He said a recent U.S. Supreme Court decision raises questions of the utility of the Abandoned Shipwrecks Act. (See also Spring 1998, SHORELINES, "The Abandoned Shipwreck Act and the Brother Jonathan.") Coastal managers and historic preservation professionals are already stretched to meet the demands of resources and the public. "It can be hard to be optimistic about it."

Until recently, John Dorwin directed an underwater archaeology program at Ball State University, and one of his classes received brief exposure to shipwreck fieldwork on the Indiana waters of Lake Michigan. He reflects that shipwreck preservation requires a partnership of state and local resources, with a prominent role for sport divers. According to Dorwin, "an element of education, articulating with the diving community, would go a long way" toward improving public understanding and interest.

Dorwin observes, "People in the state in general are almost totally unaware of Indiana's water transportation heritage. The City of Gary was built as a company town for US Steel because the Great Lakes provided a ready means of transportation for the iron ore from Lake Superior. Indiana expended millions of dollars in the 1830s on a canal system and went bankrupt."

There needs to be "a point of contact," he said, through the state or a university, with "some classes and continuing survey work." Someone needs to be responsible for assessing the condition of known wrecks each year. They are deteriorating, but we don't know the extent of that. Also, we need to add to our knowledge with additional surveys." Dorwin observed, "We need to be pro-



active and not just reactive relative to diving clubs and historic preservation groups.”

Early says today Indiana’s Lake Michigan shipwrecks are known to recreation divers, but few others. “This problem, however, may be solved through recognized means similar to those used to see and experience other typically inaccessible resources.” Early suggests the development of a “museum, conservatory, or visitors center” to focus attention and foster public understanding of the resource.

For now, the future of Lake Michigan shipwrecks is uncertain.

For more information on shipwreck initiatives in the Great Lakes Region, see Shipwrecks: *COASTAL MANAGERS Search for Solutions, COASTAL SERVICES* (November/December 1998). This article is also available on the Internet at <http://www.csc.noaa.gov/newsletter/shipwreck.html/>

NRC Tours Sites in Northern Lake County

The Natural Resources Commission helps implement uniform policies for natural and cultural resources, including on lands managed by the DNR. Two or three times a year, the NRC visits its key Indiana sites to better understand challenges and opportunities. In coordination with its September monthly meeting, the NRC this fall viewed several sites in northern Lake County.

John Bacone, Director of the DNR’s Division of Nature Preserves, led a tour of Clark and Pine Nature Preserve.

He reported the site “contains more threatened, endangered, and rare plant species than any site of similar size in Indiana.” According to Bacone, “The nature preserve is located within a re-



Tom Post, DNR Division of Nature Preserves, reviews efforts at Clark & Pine Nature Preserves & neighboring Bongi property.

gion that has the most radically-altered landscape of the state, and it’s really remarkable we have a chance to protect so great a treasure.”

The Commission visited a site next to Clark and Pine Nature Preserve recently acquired through a settlement



NRC Members view Grand Calumet River Restoration Site

with Midwest Solvents Recovery, Inc. On this site is a major restoration project involving DNR, IDEM, USFWS, and the Department of Justice. Restoration efforts include volunteer work days to remove old tires and trash. Steps also have been taken to control invasive species such as buckthorn. According to Bacone, “In very general terms, our strategy is to cleanup, secure, and restore the Bongi property, which will be a ma-

jor project.” This effort is supported by funding from natural resource damage assessments.

The NRC also viewed the Grand Calumet River, where it received a briefing on the USX settlement, and the “Gary Lagoons” near the Gary Airport. Earlier the Commission walked the breakwater and fishing access site in the Hammond Marina on Lake Michigan, as well as the adjoining “migrant bird trap.” The commission concluded its tour at the Gibson Woods Nature Preserve in Hammond.

Round Goby affecting native species by:

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Since the late 1800s, over 140 exotic species have been introduced into the Great Lakes including the round goby (*Neogobius Melanostomus*). This fish is native to nearshore areas and tributaries of the Black and Caspian seas. It was first discovered in North America in the St.Clair River (MI) in 1990, and most likely was introduced with the ballast water of an ocean-going vessel. It is now present in all five of the Great Lakes, several inland rivers including the Cal-Sag Channel and the Calumet River, and in Wolf Lake in northwestern Indiana. Each year, the goby spreads to new areas within Lake Michigan.

Researchers and resource managers are concerned that the goby may displace native species. The goby is a benthic (bottom-dwelling) fish, and appears to be more competitive for food



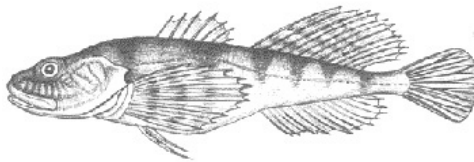
Round Goby

and shelter than native benthic fishes such as the mottled sculpin and logperch. For example, in Calumet Harbor where gobies have become abundant, mottled

What’s on Shore next:

*Harbor
Maintenance Tax*

sculpins used to be abundant, but have now almost completely disappeared. Round gobies also eat fish eggs, which might be another route through which they affect native fish populations.



Sculpin

Researchers and resource managers also are concerned that the round goby may facilitate the movement of toxins through the food web. This concern exists because a large portion of the goby diet consists of zebra mussels. Because of their ability to filter large volumes of water, zebra mussels tend to have relatively high concentrations of toxins. When gobies ingest zebra mussels, they incorporate the toxins that are in the mussels. If game fish ingest these gobies, toxins can be passed on to the game fish, and then ultimately on to humans consuming the game fish. Research is underway to verify the validity of this contamination pathway.

So what can be done about this exotic species? In areas where gobies are already numerous, they cannot be eliminated with our current technology. Like the other exotic species that have entered the Great Lakes, humans will have to learn to live with them. Gobies can be prevented from spreading to new areas, however. The U.S. Army Corps of Engineers is working to install an electrical barrier in the Cal-Sag Channel that would prevent gobies from moving into the Illinois and Mississippi rivers while still allowing navigation, commerce, and other activities to take place. (See, Summer 1997, *SHORELINES*) Anglers and other recreational water users also can take steps to reduce the accidental transport of gobies to new areas. As part of a cooperative effort between Illinois-Indiana Sea Grant and the Indiana Department of Natural Resources, signs depicting these steps have been placed at

public boat landings along Lake Michigan and at inland lakes in Indiana. These steps include knowing how to identify the round goby, and refraining from using the round goby as bait. In Indiana, it is illegal to possess a live round goby.

The round goby has scales and fused pelvic (belly) fins. It can be grey and brown or completely black. Round gobies in Lake Michigan also generally have a black spot on their first dorsal (topside) fin. Compare this to the native mottled sculpin, which looks similar and occupies similar habitat, but does not have the fused pelvic fin.

Indiana DNR selects new Lake Michigan Coastal Coordination Program Manager

In August, Laurie Rounds was selected as the new Lake Michigan Coastal Coordination Program Manager. Rounds transferred to the Coastal Coordination Program from DNR's Division of Fish and Wildlife where she worked as a restoration ecologist. In that capacity, Rounds participated in the Clark and



Pine East Nature Preserve restoration project in Lake County and other restoration projects in Northwest Indiana.

Before employment with the DNR, Rounds was an environmental scientist for the Indiana Department of Environmental Management. She has a Master of Science in Wildlife Ecology, specializing in migratory birds and wetland ecology, from the University of Florida in Gainesville. Originally from Miami, Rounds did graduate work directed to

conservation in urban environments. She also earned a Bachelor of Business Administration from the University of Central Florida in Orlando. Asked about her contrasting academic background, Rounds reflected "my undergraduate work in business provided me with an understanding of the importance of sustainable development and encouraged me to pursue graduate work and a career in conservation."

Rounds replaces Dawn Deady who left employment with the DNR to devote full-time to her husband and baby daughter. A former "employee of the year" with DNR's Division of Water, Deady was instrumental in formation of the Lake Michigan Interagency Task Force on E. coli. Deady was the first editor of *SHORELINES* and helped organize an agency website devoted primarily to Lake Michigan in Northwest Indiana. Deady helped facilitate 1995 workgroups, composed of Northwest Indiana citizens, which were directed to identifying issues of local concern. Later she helped coordinate a spin-off of those workgroups, the Blue Ribbon Advisory Panel for Lake Michigan issues.

In her new duties, Rounds is the primary contact for a program intended to enhance communication and coordination of DNR activities along Indiana's Lake Michigan coastline. She sees her role as assisting in the "simultaneous pursuit of economic development and environmental stewardship." Rounds says she is "looking forward to working with residents of the coastal region, persons who regularly demonstrate the difference each person can have on the quality of the environment." Laurie Rounds can be reached at her Indianapolis office through the following toll free telephone number: 877-928-3755 (WATER55).

New Lake Michigan Fisheries Biologist Appointed

John Kubisiak recently joined the Indiana Department of Natural Resources as the Lake Michigan Fisheries Biologist stationed in Michigan City. Kubisiak was previously employed with

the Wisconsin Department of Natural Resources. There he performed data-base management and analysis on inland waters fisheries affected by tribal fishing rights of the Chippewa. He also worked with creel surveys, population estimates, young-of-year surveys, and tribal spearing and netting data.

Kubisiak has a Bachelor of Science in Limnology from the University of Wisconsin at StevensPoint and a Master of Science in Fisheries from the University of Missouri at Columbia. Before employment with the Wisconsin DNR, he spent 1 1/2 years with the USDA Forest Service in Alaska working with anadromous fisheries in Prince William Sound and the Copper River Delta.

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The Lake Michigan Coastal Coordination Program is an effort by the State of Indiana to improve communications and cooperation among the agencies who participate in activities in the Lake Michigan coastal region. See <http://www.dnr.state.in.us/lakemich/index.htm>

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